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EXAMINER	
HUA, LY	

ART UNIT	PAPER NUMBER
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2

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/704,187	ONG, LYNDON	
	Examiner	Art Unit	
	Ly V. Hua	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

   The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 37 (and thus its dependent claims 38-48), 49 (and thus its dependent claim 50), and claims 51 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

   a. Regarding claim 37:
      i The source from which the real-time packets come so that is can be processed by the real-time firewall is not clear.
      ii The purpose for which the processor processes the real-time packets is not clear relative to the functions of the controller and the filter.

   b. Regarding claim 49:
      i The phrase "the modifying action" lacks antecedent basis.

   c. Regarding claims 51 and 51:
      i What is the further limitation in these claims that has not been recited in claims 4 and 5 is not clear.

   d. Regarding claims 38-48 and 50:
      i These claims inherit the problems of indefiniteness from their respective parent claims.

3. Claims 7, 19, 31, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
   a. With regard to each of the claims 7, 19, 31 and 43:
      i The ultimate goal for which the rejected packet is sent to the application firewall is not clear.

4. Claims 12, 24, 36 and 48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
   a. With regard to each of the claims 12, 24, 36 and 48:
      i The phrase "the modifier" lacks antecedent basis.
      ii the purpose for which the matched packet characteristic is routed to the modifier is not clear.

5. Claims 20, 21, 32 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
   a. With regard to each of the claims 20 and 32 (and thus their dependent claims 21 and 33):
      i The phrase "the modifying action" lacks antecedent basis.
      ii Claims 21 and 33 are depending on claims 20 and 32 and thus inherit the problem of indefiniteness therefrom.

6. Claims 2, 3, 8, 14, 15, 20, 26, 27, 32, 38, 39, 44 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
   a. With regard to each of these claims 2, 3, 8, 14, 15, 20, 26, 27, 32, 38, 39, 44 and 50:

i The purpose for which the modification to the accepted packet is made is not clear.

7. Claims 9, 21, 33 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
   a. With regard to each of these claims 9, 21, 33 and 45:
      i The purpose for which the modification to the accepted packet is made is still not clear.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

   i .(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1 (and its dependent claims 4, 5, 6, 10, 51 and 52), 13 (and its dependent claims 16, 17, 18 and 22), 25 (and its dependent claims 28, 29, 30 and 34), 37 (and its dependent claims 40, 41, 42 and 46) and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra et al (6,631,466 hereinafter Chopra) in view of Zirngibl et al (6,606,596 hereinafter Zirngibl) and Kallas et al (6,701,366 hereinafter Kallas).

10. Claims 1, 13, 25, 37 and 49 claim:

11. 1 An apparatus comprising:
- a. a controller
  - i to specify
    - (1) a filtering characteristic
    - (2) based on
      - (a) a control protocol
        - (i) from a call server serving firewall between a source and a destination networks; and
- b. a filter
  - i coupled to the controller
  - ii to filter
    - (1) a packet
      - (a) in a call
        - (i) transmitted from the source network
    - (2) based on the filtering characteristic,
  - iii the filter accepting
    - (1) the packet
    - (2) if the packet satisfies the filtering characteristic and
  - iv rejecting
    - (1) the packet
    - (2) otherwise.

12. 13 A method comprising:
- a. specifying
  - i a filtering characteristic
  - ii based on
    - (1) a control protocol
      - (a) from a call server serving a firewall between a source and a destination networks;
- b. filtering
  - i a packet
    - (1) in a call
      - (a) transmitted from the source network
  - ii based on the filtering characteristic; and
- c. accepting
  - i the packet
  - ii if the packet satisfies the filtering characteristic and
- d. rejecting
  - i the packet
  - ii otherwise.

13. 37 A system comprising:
- a. a source and destination networks;
- b. an application firewall
  - i coupled to the source and destination networks; and
- c. a real-time firewall
  - i coupled to the source and destination networks
  - ii to process real-time packets,
- d. the real-time firewall comprising:
  - i a controller
    - (1) to specify
      - (a) a filtering characteristic
      - (b) based on
        - (i) a control protocol
          - 1) from a call server serving a firewall between a source and a destination networks, and
  - ii a filter
    - (1) coupled to the controller
    - (2) to filter
      - (a) a packet
        - (i) in a call
          - 1) transmitted from the source network
      - (b) based on the filtering characteristic,
    - (3) the filter accepting
      - (a) the packet
      - (b) if the packet satisfies the filtering characteristic and
    - (4) rejecting
      - (a) the packet
      - (b) otherwise.

14. 49 An apparatus (i.e., a firewall) comprising:
- a. a controller
  - i to specify
    - (1) a filtering characteristic
    - (2) based on
      - (a) a control protocol
        - (i) from a call server serving a firewall between a source and a destination networks;
- b. a filter
  - i coupled to the controller
  - ii to filter
    - (1) a packet
      - (a) in a call transmitted from the source network
    - (2) based on the filtering characteristic,
  - iii the filter
    - (1) accepting
      - (a) the packet
      - (b) if the packet satisfies the filtering characteristic and
    - (2) rejecting
      - (a) the packet
      - (b) otherwise; and
- c. a modifier
  - i coupled to the controller and the filter
  - ii to modify
    - (1) the accepted packet
    - (2) based on the modifying action,
- d. the modified packet
  - i being sent
    - (1) to the destination network.

15. 25 A computer program product
- a. comprising:
  - i a machine useable medium
    - (1) having
      - (a) computer program code
        - (i) embedded therein,
- b. the computer program product having:
  - i computer readable program code
    - (1) to specify
      - (a) a filtering characteristic
      - (b) based on
        - (i) a control protocol
          - 1) from a call server serving a firewall between a source and a destination networks; and
  - ii computer readable program code
    - (1) to filter
      - (a) a packet
        - (i) in a call
          - 1) transmitted from the source network
      - (b) based on the filtering characteristic; and
  - iii computer readable program code
    - (1) to accept
      - (a) the packet
      - (b) if the packet satisfies the filtering characteristic and
    - (2) rejecting
      - (a) the packet
      - (b) otherwise.

c. As per claim 13:

i Chopra et al teaches [at col. 1, lines 42-58] a method comprising:
(1) specifying
(a) a filtering characteristic
(b) based on
(i) a control protocol [i.e., the set of packet filtering rules (col. 1, line 47)]
~~1) from a call server~~
a) ~~serving a firewall between a source and a destination networks~~;
(2) filtering
(a) a packet
(i) in a call
1) transmitted from the source network
(b) based on the filtering characteristic; and
(3) accepting [i.e., routing]
(a) the packet
(b) if the packet satisfies the filtering characteristic and
(4) rejecting [i.e., dropping] the packet otherwise.

ii However, Chopra does not explicitly teach that his control protocol is from a call server.

iii Zirngibl ('596) teaches a call server 18 that routes a call to a security module [col. 26, lines 31-33].
(1) Zirngibl teaches that his security module 1818 follows at least rules –
(a) the first one of the rules is following a rule to authenticate a call by using login information and
(b) the second one of the rules is following the techniques of speech recognition and pattern matching.

iv Kallas ('366) teaches a call server [24] that is connected to a element 30 between network 21 and network 12.

v It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
(1) implement Zirngibl's teaching in the system of Kallas so as to have Kallas's call server does security check as that which is done by Zirngibl; and
(2) shift the filtering done at a call server to a gateway/proxy-server/firewall that does security check to have the filtering done thereat, rather than at the call server.

vi The skilled person would have been motivated to do such shifting because:
(1) it is a common practice in the art to shift/allocate/assign a task form one computer in a network to another computer so as desired;
(2) shifting the security check to a gateway/firewall/proxy-server would centralize the implementation, the installation, the maintaining the updating and the management of the security elements; and
(3) the function of security checking is readily available at network element such as a gateway/firewall/proxy-server.

d. As per claims 1, 25, 37 and 49:
i These claims have limitations that are similar to those of claim 13 and thus are similarly rejected with the same rationale.

e. As per claims 4, (51), 5, (52), 16, 17, 28, 29, 40 and 41:

i These claims claim:

(1) 4 The apparatus of claim 1 wherein the source network is (a) one of (i) a public network and (ii) a private network. (2) 51 The apparatus of claim 1 wherein the source network (a) one of (i) a public network and (ii) a private network.	(3) 16 The method of claim 13 wherein the source network (a) one of (i) a public network and (ii) a private network.	(4) 28 The computer program product of claim 25 wherein the source network is (a) one of (i) a public network and (ii) a private network.	(5) 40 The system of claim 37 wherein the source network is (a) one of (i) a public network and (ii) a private network.
(6) 5 The apparatus of claim 1 wherein the destination network is (a) one of (i) a public network and (ii) a private network. (7) 52 The apparatus of claim 1 wherein the destination network (a) one of (i) a public network and (ii) a private network.	(8) 17 The method of claim 13 wherein the destination network is (a) one of (i) a public network and (ii) a private network.	(9) 29 The computer program product of claim 25 wherein the destination network (a) one of (i) a public network and (ii) a private network.	(10) 41 The system of claim 37 wherein the destination network is (a) one of (i) a public network and (ii) a private network.

ii Chopra's source network or destination network is either a private or a public network.

f. As per claims 6, 10, 18, 22, 30, 34, 42 and 46:

i These claims claim:

(1) 6. The apparatus of claim 1 wherein the filtering characteristic is one of (a) a traffic characteristic, (b) a network address, and (c) a port identifier corresponding to the call.	(3) 18 The method of claim 13 wherein the filtering characteristic is one of (a) a traffic characteristic, (b) a network address, and (c) a port identifier corresponding to the call.	(5) 30 The computer program product of claim 25 wherein the filtering characteristic is one of (a) a traffic characteristic, (b) a network address, and (c) a port identifier corresponding to the call.	(7) 42 The system of claim 37 wherein the filtering characteristic is one of (a) a traffic characteristic, (b) a network address, and (c) a port identifier corresponding to the call.
(2) 10 The apparatus of claim 6 wherein the call is (a) a voice over Internet protocol (VoIP) call.	(4) 22 The method of claim 18 wherein the call is (a) a voice over Internet protocol (VoIP) call.	(6) 34 The computer program product of claim 30 wherein the call is (a) a voice over Internet protocol (VoIP) call.	(8) 46 The system of claim 42 wherein the call is (a) a voice over Internet protocol (VoIP) call.

ii Chopra's filtering characteristic is one of:
(1) a traffic characteristics,
(2) network address; and
(3) a port identifier corresponding to the call.

iii The applicant is hereby also directed to Ogon et al (6,589,075, Detailed Description Text, paragraph 13) for more of the filtering characteristics that can be used for packet filtering.

16. Claims 7, 12, 19, 24, 31, 36, 43 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra et al (6,631,466 hereinafter Chopra), Zirngibl et al (6,606,596 hereinafter Zirngibl) and Kallas et al (6,701,366 hereinafter Kallas) as applied against claims 1, 13, 25, 37 and 49 above, further in view of Fink et al (6,496,935 hereinafter Fink).

a. As to claims 7, 19, 31 and 43:

i These claims claim:			
(1) 7 The apparatus of claim 1 wherein (a) the rejected packet (i) is sent 1) to an application firewall.	(2) 19 The method of claim 13 wherein (a) the rejected (i) is sent 1) to an application firewall.	(3) 31 The computer program product of claim 25 wherein (a) the rejected (i) is sent 1) to an application firewall.	(4) 43 The system of claim 37 wherein (a) the rejected packet (i) is sent 1) to an application firewall.

ii Claims 1, 13, 25 and 37 have been addressed above with reference to:
(1) Chopra et al (6,631,466 hereinafter Chopra),
(2) Zirngibl et al (6,606,596 hereinafter Zirngibl) and
(3) Kallas et al (6,701,366 hereinafter Kallas).

iii However, the above references do not explicitly teach that:

(1) the rejected packet is sent to a firewall.

iv Fink et al (6,496,935 hereinafter Fink) teaches [see Fig. 3, step 4b]
(1) that rejected packet is sent to a firewall.

v It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
(1) apply the teaching of Fink to a system having the combination of
(a) Chopra et al (6,631,466 hereinafter Chopra),
(b) Zirngibl et al (6,606,596 hereinafter Zirngibl) and
(c) Kallas et al (6,701,366 hereinafter Kallas).

vi The skilled person would have been motivated to do such application because:
(1) Fink teaches that such sending make available the rejected packet at the firewall for handling thereat [col. 9, lines 56-58].

17. As to Claims 12, 24, 36 and 48:

i Claims 12, 24 36 and 48 claim:

(1) 12 The apparatus of claim 1 wherein the filter comprises: (a) an extractor (i) to extract 1) a packet characteristic 2) from the packet; (b) a matcher (i) coupled to the extractor (ii) to match 1) the packet characteristic 2) with the filtering characteristic; and (c) a packet router (i) coupled to the matcher (ii) to route 1) the packet 2) to the modifier 3) if the packet characteristic matches the filtering characteristic.	(2) 24 The method of claim 13 wherein filtering comprises: (a) Extracting (i) a packet characteristic (ii) from the packet; (b) matching (i) the packet characteristic (ii) with the filtering characteristic; and (c) routing (i) the packet (ii) to the modifier (iii) if the packet characteristic matches the filtering characteristic.	(3) 36 The computer program product of claim 25 wherein the computer readable program code to filter comprises: (a) computer readable program code (i) to extract 1) a packet characteristic 2) from the packet; (b) computer readable program code (i) to match 1) the packet characteristic 2) with the filtering characteristic; and (c) computer readable program code (i) to route 1) the packet 2) to the modifier 3) if the packet characteristic matches the filtering characteristic.	(4) 48 The system of claim 37 wherein the filter comprises: (a) an extractor (i) to extract 1) a packet characteristic 2) from the packet; (b) a matcher (i) coupled to the extractor (ii) to match 1) the packet characteristic 2) with the filtering characteristic; and (c) a packet router (i) coupled to the matcher (ii) to route 1) the packet 2) to the modifier 3) if the packet characteristic matches the filtering characteristic.

ii Claims 1, 13, 25 and 37 have been addressed above with reference to:
(1) Chopra et al (6,631,466 hereinafter Chopra),
(2) Zirngibl et al (6,606,596 hereinafter Zirngibl) and
(3) Kallas et al (6,701,366 hereinafter Kallas).

iii However, the above references do not explicitly teach:
(1) a combination of:
(a) extracting
(i) a packet characteristic
(ii) from the packet;
(b) matching
(i) the packet characteristic
(ii) with the filtering characteristic; and
(c) routing
(i) the packet
(ii) to the modifier
(iii) if the packet characteristic matches the filtering characteristic.

iv Fink et al ('935) teaches:
(1) extracting [Detailed Description Text, paragraphs 8 and 13]
(a) a packet characteristic [i.e., predetermined parameters]
(b) from the packet;
(2) matching [i.e., "comparing" --- Brief Summary Text, paragraph 16; Claims 9 and 17]
(a) the packet characteristic
(b) with the filtering characteristic [i.e., at least one parameter according to one at least instruction]; and
(3) routing [step 5a, Fig. 3]
(a) the packet
(b) to the modifier [i.e.., a destination]
(c) if the packet characteristic matches the filtering characteristic -- [step 4a].

18. Claims 11, 23, 35 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra et al (6,631,466 hereinafter Chopra) , Zirngibl et al (6,606,596 hereinafter Zirngibl) and Kallas et al (6,701,366 hereinafter Kallas) as applied to claims 1, 13, 25, 37 above, further in view of either Kaplan et al (6,456,596 herein after Kaplan) or Banginwar (6,611,863).

a. As to claims 11, 23, 35 and 47:

i These claims claim:			
(1) 11 The apparatus of claim 1 wherein the control protocol is (a) one of (i) a megaco protocol and (ii) a Common Open Policy Service (COPS) protocol.	(2) 23 The method of claim 13 wherein the control protocol is (a) one of (i) a megaco protocol and (ii) a Common Open Policy Service (COPS) protocol.	(3) 35 The computer program product of claim 25 wherein the control protocol is (a) one of (i) a megaco protocol and (ii) a Common Open Policy Service (COPS) protocol.	(4) 47 The system of claim 37 wherein the control protocol is (a) one of (i) a megaco protocol and (ii) a Common Open Policy Service (COPS) protocol.

ii Claims 1, 13, 25 and 37 have been addressed above with reference to:
(1) Chopra et al (6,631,466 hereinafter Chopra),
(2) Zirngibl et al (6,606,596 hereinafter Zirngibl) and
(3) Kallas et al (6,701,366 hereinafter Kallas).

iii However, the above references do not explicitly teach:
(1) that the control protocol therein is
(a) one of
(i) a megaco protocol and
(ii) a Common Open Policy Service (COPS) protocol.

iv Although both of (a) a megaco protocol and (b) a Common Open Policy Service (COPS) protocol are notoriously old and well known in the art, the following examples are provided for evidences:
(1) As an example, Kaplan et al (6,456,594) teaches [e.g., in claims 11 and 26] a network device, utilizing Media Gateway Control (MEGACO) protocol, to filter received data according to defined filtering parameter; and
(2) As another example, Banginwar (6,611,863) teaches [e.g., in his Brief Summary Text, paragraph 5; Detailed Description Text, paragraph 5] a network device, utilizing COPS protocol, to filter received packet.

v It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
(1) use exisisting protocol filtering control to control a filtration.

vi The skilled person would have been motivated to use megaco protol or a Common Open Policy Service protocol to filter communications packet because they have been made available for use in such purpose.

19. Claims 2, 3, 8, 14, 15, 20, 25, 27, 32, 38, 39, 44 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra et al (6,631,466 hereinafter Chopra), Zirngibl et al (6,606,596 hereinafter Zirngibl) and Kallas et al (6,701,366 hereinafter Kallas) as applied against claims 1, 13, 25, 37 and 49 above, further in view of Shwed et al (5,835,725 hereinafter Shwed).

a. As to Claims 2, 3, 8; claims 14, 15, 20; claims 26, 27, 32; claims 38, 39, 44; and claim 50;

i These claims 2, 3, 8, 14, 15, 20, 26, 27, 32, 38, 39, 44 and 50 claim:

(1) 2 The apparatus of claim 1 wherein the controller further (a) specifies (i) a modifying action (ii) based on the control protocol. (2) 3 The apparatus of claim 2 further comprises: (a) a modifier (i) coupled to the controller and the filter (ii) to modify 1) the accepted packet 2) based on the modifying action, (b) the modified packet (i) being sent 1) to the destination network.	(3) 14 The method of claim 13 wherein specifying further comprises (a) Specifying (i) a modifying action (ii) based on the control protocol. (4) 15 The method of claim 14 further comprises: (a) modifying (i) the accepted packet (ii) based on the modifying action, (b) the modified packet (i) being sent 1) to the destination network.	(5) 26 The computer program product of claim 25 (a) wherein the computer readable program code to specify (i) further comprises 1) specifying a) a modifying action b) based on the control protocol. (6) 27 The computer program product of claim 26 further comprises: (a) computer readable program code (i) to modify 1) the accepted packet 2) based on the modifying action, (b) the modified packet (i) being sent 1) to the destination network.	(7) 38 The system of claim 37 (a) wherein the controller further (i) specifies 1) a modifying action 2) based on the control protocol. (8) 39 The system of claim 38 further comprises: (a) a modifier (i) coupled to the controller and the filter (ii) to modify 1) the accepted packet 2) based on the modifying action, (b) the modified packet (i) being sent 1) to the destination network.	(9) 50 The apparatus of Claim 49 wherein the controller further (a) specifies (i) a modifying action (ii) based on the control protocol.
(10) 8 The apparatus of claim 3 wherein the modifying action is (a) one of (i) an address swapping, (ii) a port swapping, and (iii) a protocol conversion.	(11) 20 The method of 13 wherein the modifying action is (a) one of (i) an address swapping, (ii) a port swapping, and (iii) a protocol conversion.	(12) 32 The computer program product of 25 (a) wherein the modifying action is (i) one of 1) an address swapping, 2) a port swapping, and 3) a protocol conversion.	(13) 44 The system of claim 39 wherein the modifying action is (a) one of (i) an address swapping, (ii) a port swapping, and (iii) a protocol conversion.	

ii The limitations of the claims (particularly claims 1, 13, 25, 37 and 49) on which these claims depend have been addressed above with reference to Chapra, Zingibl and Kallass.
iii However those references are used for addressing the filtering features. Those references do not explicitly teach modifying the excepted packet as recited in these claims 2, 3, 8, 14, 15, 20, 26, 27, 32, 38, 39, 44 and 50.
iv Shwed et al (5,835,725) teaches the limitation in these claims 2, 3, 8, 14, 15, 20, 26, 27, 32, 38, 39, 44 and 50 in that:
(1) with regard to claims 2, 14, 26, 38 and 50:
(a) Shwed et al (5,835,726 hereinafter Shwed) teaches:
(i) specifies [i.e., generates]
1) modifying action [address translation]
2) based on a control protocol [i.e., rules in the rule base];
(2) with regard to claims 3, 15, 27 and 39:
(a) Shwed also teaches
(i) modifying [address-translating]
1) accepted packet,
a) that is to be sent to a destination network,
2) based on the modifying action [address translation]; and
(3) with regard to claims 8, 20, 32 and 44:
(a) Shwed also teaches:
(i) that his modifying is
1) one of
a) an address swapping [i.e., address translating],
b) a port swapping and
c) a protocol conversion.
v It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
(1) use of one of the ways in which a packet can be modified to modify a packet before forwarding it to a destination.
vi The examiner has not provide the motivation for which the skilled person would have been motivated to use the known ways to do a modification in the packet because the applicant has not recited in the claim the purpose for which the recited ultimate goal for which the modification is made, other than to just have the packet modified as is teach by Shwed.

20. Claims 9, 21, 33 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chopra et al (6,631,466 hereinafter Chopra), Zirngibl et al (6,606,596 hereinafter Zirngibl), Kallas et al (6,701,366 hereinafter Kallas) and Shwed et al (5,835,725 hereinafter Shwed) as applied against claims 8, 20, 32 and 44 above, further in view of either Higuchi et al (6,580,717 hereinafter Higuchi) or Tsuchiya et al (6,690,669 hereinafter Tsuchiya).

a. As to Claims 9, 21, 33 and 45:

i These claims 9, 21, 33 and 45 claim:			
(1) 9 The apparatus of claim 8 wherein the protocol conversion is (a) a conversion between an IPv4 and an IPv6.	(2) 21 The method of claim 20 wherein the protocol conversion is (a) a conversion between an IPv4 and an IM.	(3) 33 The computer program product of claim 32 wherein the protocol conversion is (a) a conversion between an IPv4 and an IM..	(4) 45 The system of claim 44 wherein the protocol conversion is (a) a conversion between an IPv4 and an IM.

ii With regard to claims 9, 21, 33 and 45:
(1) Claims 8, 20, 32 and 44 have been addressed above with reference to:
(a) Chopra et al (6,631,466 hereinafter Chopra), Zirngibl et al (6,606,596 hereinafter Zirngibl) and Kallas et al (6,701,366 hereinafter Kallas) [with respect to independent claims 1, 13, 25 37 and 49] and
(b) Shwed [with respect to dependent claims 8, 20, 32 and 44].
(2) However, those references does not explicitly teach:
(a) protocol conversion between an Ipv4 and an Ipv6.
(3) Higuchi et al (6,580,717 hereinafter Higuchi) or Tsuchiya et al (6,690,669 hereinafter Tsuchiya) teach:
(a) protocol conversion between an Ipv4 and an Ipv6.
(4) It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:
(a) modify one communication protocol form one network to another protocol in another network so as to make the communication conform to the another network.
(5) The skilled person would have been motivated to do such modification because:
(a) Higuchi teaches such conversion because the two protocols are being used in the networks; and
(b) such conversion enables a communication system to be more divergent, allowing more different protocols to be used in a network, rather than just one protocol;

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly V. Hua whose telephone number is (703) 305-9684. The examiner can normally be reached on Monday to Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Kim, can be reached on 703-305-4303. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Ly V. Hua
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Lvh
June 14, 2004